

REMARKS

By this amendment, claims 1-40 are pending, in which claims 1, 21, and 40 are currently amended, and no claims are canceled, withdrawn, or newly presented. No new matter is introduced.

The Office Action mailed August 12, 2005 rejected claims 1-40 under 35 U.S.C. § 112, second paragraph, claims 1-4, 6-9, 11-15, 20-24, 26-34, and 39-40 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* (U.S. 6,434,618) in view of *Bhattacharya et al.* (U.S. 6,587,466), claims 5 and 25 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* and *Bhattacharya et al.* in view of *Haas* (U.S. 5,115,432), claims 16, 18, 35, and 37 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* and *Bhattacharya et al.* in view of *Feldman et al.* (U.S. 6,055,561), claims 17 and 36 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* and *Bhattacharya et al.* in view of *Sauter* (U.S. 5,537,546), claims 19 and 38 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* and *Bhattacharya et al.* in view of *Grant et al.* (U.S. 5,027,269), and claims 10 and 29 under 35 U.S.C. § 103(a) as obvious over *Cohen et al.* and *Bhattacharya et al.* in view of *Gai et al.* (U.S. 6,651,096).

Independent claims 1, 21, and 40 have been amended in accordance with the Office Action's suggestion, thus rendering moot the rejection under 35 U.S.C. § 112.

The remaining rejections of claims 1-40 are respectfully traversed because the references applied, alone or in combination, fail to disclose all of the features of the claims.

Independent claim 1, directed to a method of communication in a network access system, recites, "receiving a control message **from the external processor**, by the programmable access device, **to establish a configuration** of the programmable access device" and "**communicating a first subset of the received messages** from the programmable access device to the external processor for service processing **in accordance with the configuration.**" Independent claim 21,

directed to a network access system, recites, “an **external processor** that transmits a **control message specifying a configuration**” and “a programmable access device that receives messages from a first network external to the network access system via a first network interface, and that, **responsive to the control message**, establishes the configuration specified by the control message and **communicates a first subset of the received messages** to the external processor for service processing **in accordance with the configuration.**” Independent claim 40, directed to a distributed router, recites, “a programmable access device configured to input messages from the first network via the first network interface” and “an **external processor configured to receive**, from the programmable access device, **a first subset of the input messages** and to transmit a **control message** to the programmable access device **specifying a configuration to control the selection of the first subset.**”

In stark contrast, *Cohen et al.* (per Abstract) is concerned with a programmable network element 400 that operates on packet traffic flowing through the element in accordance with a gateway program 404, 405, 406 which is dynamically uploaded into the network element or unloaded from it via a mechanism separate from the actual packet traffic as the element operates. The programmable network element can simultaneously operate on plural packet flows with different or the same programs being applied to each flow. A dispatcher 402 provides a packet filter 403 with a set of rules provided by one or more of the dynamically loaded and invoked programs. These rules define, for each program, the characteristics of those packets flowing through the network element that are to be operated upon in some manner. A packet that flows from the network through the filter and satisfies one or more of such rules is sent by the packet filter to the dispatcher. The dispatcher, in accordance with one of the programs, either sends the packet to the program for manipulation by the program itself, or manipulates the packet itself in a manner instructed by the program. The processed packet is sent back through the filter to the

network for routing to its destination. *Cohen et al.*'s **programmable gateway 400 is embodied as a number of processes running on a Linux OS** (col. 4: 7-14 and FIG. 4). In FIG. 4, the processes below dotted line 401 within gateway 400 represent processes within the Linux kernel.

According to the Office Action (p. 3, p. 4), the recited "external processor" is taught by *Cohen et al.*'s dispatcher process 402, and the recited "programmable access device" is taught by *Cohen et al.*'s programmable gateway. The Office Action (p. 4, p. 5) further states "the dispatcher with the packet filter has programmed flows to allow to pass and those flows can be changed by the gateway programs and the admission daemon," citing col. 10: 25-28. However, the Office Action (p. 4, p. 5) states, "Cohen teaches that processor handling some of the packets to be a process on the programmed gateway, not an external processor." The Office Action then states (p. 4, p. 5):

Bhattacharya teaches a system that has an edge device that handles packets, but is coupled to an external processor that can make policy decisions on some of the packets received (Column 12, lines 8-12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the Bhattacharya's teaching of having an external server handling the policy decisions in an edge device in Cohen's system in order to outsource the policy decisions freeing up the policy server to handle more than just one access device (Column 12, lines 12-14).

Thus, the Office Action apparently attempts to equate the recited "external processor" with a proposed modification to *Cohen et al.* of adding an edge device of *Bhattacharya et al.* to handle policy decisions. However, as pointed out previously, *Cohen et al.*'s **programmable gateway 400 is embodied as a number of processes running on a Linux OS** (col. 4: 7-14 and FIG. 4). The dispatcher process 402 of *Cohen et al.* (col. 5: 40-56) manages the packet traffic between the kernel and the gateway programs 404, 405 and 406. Once a gateway program is initiated by the admission daemon 410, it requests the dispatcher to send it all packets that satisfy certain properties or rules, such as conditions on the source address, destination address, or TCP

ports. The dispatcher process verifies that access to such packets is within the privilege level of the requesting gateway program and proceeds to request such packets from packet filter 403. Once such packets are received, they are sent to the requesting program. The dispatcher process 402 also sends packets it receives from gateway programs to raw IP socket 415. Packets obtained from a gateway program are checked by the dispatcher process 402 to verify that they satisfy the constraints of the original gateway program as defined by its privilege level and other properties such as the IP address of the program's injector. Thus, the dispatcher process 402 makes policy decisions relating to the local **processes running on the Linux OS**, and thus the Office Action's suggestion to modify *Cohen et al.* by adding an "edge device external server handling the policy decisions in an edge device in Cohen's system in order to outsource the policy decisions freeing up the policy server to handle more than just one access device" not only adds unnecessary complexity to *Cohen et al.*'s programmable gateway, but makes no sense technically. For example, claim 1 recites, "receiving a control message from the external processor, by the programmable access device, to establish a configuration of the programmable access device," which is not even addressed by the Office Action's proposed modification. If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959).

MPEP § 2143.01 Moreover, if a proposed modification would render the prior art being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984). The Office Action merely engages in wishful impermissible hindsight construction of the claim terms by proposing modifications to *Cohen et al.*'s programmable gateway that make no sense technically. Furthermore, as clearly stated by the MPEP § 2141.02, "Ascertaining the differences

between the prior art and the claims at issue requires interpreting the claim language, and considering both the invention and the prior art references as a whole.” Further, “In determining the differences between the prior art and the claims, the question under 35 U.S.C. 103 is not whether the differences themselves would have been obvious, but whether the claimed invention as a whole would have been obvious. *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 218 USPQ 871 (Fed. Cir. 1983); *Schenck v. Nortron Corp.*, 713 F.2d 782, 218 USPQ 698 (Fed. Cir. 1983)” Thus, the obviousness rejection of claims 1, 21, and 40 should be withdrawn.

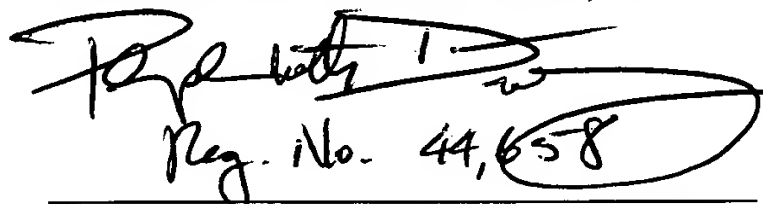
The rejection of dependent claims 2-4, 6-9, 11-15, 20, 22-24, 26-34, and 39 should be withdrawn for at least the same reasons as those discussed above with regard to their respective independent claims, and these claims are separately patentable on their own merits.

Regarding the rejections of dependent claims 5, 10, 16-19, 25, and 35-38, the addition of *Haas, Feldman et al.*, *Sauter*, *Grant et al.*, and *Gai et al.*, individually or in any combination, does not cure the deficiencies of *Cohen et al.* and *Bhattacharya et al.* as discussed previously. *Haas* is cited (Office Action, p. 8) for a supposed teaching of a retransmissions policy, *Feldman et al.* is cited (Office Action, p. 9) for a supposed teaching of communicating acknowledgement and keepalive messages between network nodes, and *Sauter* is cited (Office Action, p. 9) as supposedly teaching a network node with an API and *Grant et al.* is cited (Office Action, p. 10) as supposedly disclosing a detection of failure in a system where data is lost and sending a request for state of a session information. Further, *Gai et al.* is cited (Office Action, p. 11) as supposedly teaching making configuration changes to a scheduler, and one or more output queues. Applicants respectfully submit that none of the applied references, alone or in any reasonable combination, disclose or suggest the recited claim features. Therefore, the rejection of claims 1-40 should be withdrawn.

Therefore, the present application, as amended, overcomes the objections and rejections of record and is in condition for allowance. Favorable consideration is respectfully requested. If any unresolved issues remain, it is respectfully requested that the Examiner telephone the undersigned attorney at (703) 425-8508 so that such issues may be resolved as expeditiously as possible.

Respectfully Submitted,

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Date

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